

Patent No.:

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Conf. No.:

Examiner:

8472

Mark T. Kopec

§

In re Applicant: CHING-WU CHU

7,709,418

Application No.: 07/300,063 1796 Art Unit:

Issue Date: May 4, 2010 Docket No.: 053451.0001

For: **HIGH TRANSITION** Customer No.: 1200

**TEMPERATURE** SUPERCONDUCTING **COMPOSITIONS** 

Certificate

**Commissioner for Patents** APR 0 4 2012 Office of Data Management of Correction

**Attention: Certificates of Correction Branch** P.O. Box 1450

Alexandria, VA 22313-1450

# REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR PTO MISTAKE (37 C.F.R. § 1.322(a))

Attached, in duplicate, is PTO/SB/44 (also PTO 1050), the Certificate of Correction form. Upon reviewing the above-identified patent, Patentee's attorney noted a typographical error in claim 4 of the patent (col 14, line 20). Patentee respectfully requests that these errors be corrected.

It is submitted that the U.S. Patent and Trademark Office ("USPTO") is responsible for the typographical error in the issued patent. Enclosed is Patentee's Response to Office Action and Amendment dated July 31, 2009 (Exhibit A), which includes a listing of the claims with the correct formula. Original claim 21, renumbered as final claim 4, contains the correct formula:

<sup>&</sup>lt;sup>1</sup> See Exhibit B, Index of Claims (Oct. 13, 2009).

(Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>. Currently, the patent incorrectly shows subscript "a" as "3." The mistake is

of such a nature that the meaning intended may not be readily apparent from the context of the

claims and specifications; the error is thus potentially of consequence and a Certificate of

Correction is proper and should be issued pursuant to the provisions of 37 C.F.R. § 1.322 and

MPEP 1480.

Since the error for which correction is sought is an error made by the USPTO, Patentee

believes that no fee is required. The Commissioner is hereby authorized to charge any additional

fees which may be required or credit any overpayment to Deposit Account No. 16-2435. A

duplicate copy of this sheet is also enclosed.

Issuance of a Certificate of Correction is believed appropriate and is respectfully solicited.

Please send the Certificate to the undersigned.

Date: March 29, 2012

Respectfully submitted,

Rehan M. Safiullah, Reg. 63,506

AKIN GUMP STRAUSS HAUER & FELD LLP

1111 Louisiana Street, 44<sup>th</sup> Floor

Houston, Texas 77002

Telephone:

(713) 220-5800

Facsimile:

(713) 236-0822

<sup>2</sup> See Exhibit A, Resp. to Office Action and Amendment at 4 (July 31, 2009).

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# **CERTIFICATE OF MAILING**

RADEN I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, Office of Patent Publication, Certificate of Corrections Branch, P.O. Box 1450, Alexandria, VA 22313-1450 on March 29, 2012.

Rehan M. Safiullah

# EXHIBIT A

# **MAIL STOP AMENDMENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

§ Conf. No.:

8472

CHU

§ §

Filed: January 23, 1989

§ Art Unit:

1796

Serial No.: 07/300,063

Examiner:

Mark T. Kopec

For: HIGH TRANSITION

TEMPERATURE

§ Docket No.:

053451.0001

SUPERCONDUCTING

COMPOSITIONS

Customer No.: 1200

Mail Stop: AMENDMENT Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sirs and Madams:

## RESPONSE TO OFFICE ACTION AND AMENDMENT

In response to the Office Action mailed February 3, 2009, Applicant respectfully requests that the Examiner reconsider the rejection of the claims in view of the following amendments and remarks set forth herein. A three-month Petition for Extension of Time is being filed herewith.

# Adjustments to the Abstract:

Please replace the Abstract as follows:

Described is a superconducting composition comprising an oxide complex of the formula  $[L_{1-x}M_x]_aA_bO_y$  wherein L is lanthanum, lutetium, yttrium or scandium; A is copper, bismuth, titanium, tungsten, zirconium, tantalum, niobium, or vanadium; M is barium, strontium, calcium, magnesium or mercury; and "a" is 1 to 2; "b" is 1; "x" is a number in the range of 0.01 to 0.5 and preferably 0.075 to 0.5; and "y" is about 2 to about 4. The oxide complexes of the invention are prepared by solid-state reaction procedure which produce oxide complexes having enhanced superconducting transition temperatures compared to an oxide complex of like empirical composition prepared by a coprecipitation – high temperature decomposition procedure. With a solid-state reaction prepared oxide complex of the invention a transition temperature as high as  $100^{\circ}$  K has been observed even under atmospheric pressure.

#### Adjustments to the Claims:

Please cancel claims 19, 22, and 26.

Please amend claims 23-25 and 27 as follows.

The listing of claims will replace all prior versions and listings of claims in the application:

# **Listing of Claims:**

We claim:

- 17. (Original) A composition of matter comprising a Y-Ba-Cu-O complex of nominal formula:
  - (Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>, wherein "x" is about 0.01 to 0.5, "a" is about 1 to 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to at least 24% of the superconducting signal of a lead sample with similar dimensions.
- 18. (Original) A composition of matter comprising a Y-Ba-Cu-O complex of nominal formula:
  - (Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>, wherein "x" is 0.4, "a" is 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to about 24% of the superconducting signal of a lead sample with similar dimensions
- 19. (Cancelled)

- 20. (Original) A method for conducting an electrical current without electrical resistive losses, comprising the steps of:
  - utilizing as a conductor a composition of matter comprising a Y-Ba-Cu-0 complex of nominal formula (Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>, wherein "x" is about 0.01 to 0.5, "a" is about 1 to 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to at least 24% of the superconducting signal of a lead sample with similar dimensions;
  - cooling said composition of matter to a temperature at or below that at which said crystalline phase becomes superconductive; and
  - initiating a flow of electrical current within said composition of matter while maintaining said composition of matter at or below the temperature at which said crystalline phase becomes superconductive.
- 21. (Original) A method for conducting an electrical current without electrical resistive losses, comprising the steps of:
  - utilizing as a conductor a composition of matter comprising a Y-Ba-Cu-O complex of nominal formula  $(Y_{1-x}Ba_x)_aCu_bO_y$ , wherein "x" is 0.4, "a" is 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a  $K_2NiF_4$  crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to about 24% of the superconducting signal of a lead sample with similar dimensions;

- cooling said composition of matter to a temperature at or below that at which said crystalline phase becomes superconductive; and
- initiating a flow of electrical current within said composition of matter while maintaining said composition of matter at or below the temperature at which said crystalline phase becomes superconductive.
- 22. (Cancelled)
- 23. (Currently Amended) The superconducting composition of claim <u>24\_22</u>-wherein the composition exhibits zero electrical resistance at a temperature of 77°K or above.
- 24. (Currently Amended) A The superconducting composition exhibiting zero electrical resistance at a temperature of 40°K or above of claim 23 having the nominal formula

$$[Y_{1-x}Ba_x]_aCu_bO_y$$

wherein x is 0.4, a is 2, b is 1, and y is 2 to 4.

- 25. (Currently Amended) The superconducting composition of claim <u>24\_22</u>—wherein said composition has a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure.
- 26. (Cancelled)
- 27. (Currently Amended) A superconducting composition exhibiting zero electrical resistance at a temperature of 77°K or above having the nominal formula:

wherein "a" is about 1.2, "b" is about 0.8, "c" is about 1.0, and "x" is about 2 to 4.

#### REMARKS

Responsive to the Office Action mailed February 3, 2009, Applicant thanks Examiner for his thorough examination of the application. Claims 17-27 are currently pending. After entry of this Amendment, claims 17, 18, 21, 23-25, and 27 will remain pending. In view of the following remarks, Applicant respectfully submits that the application is in condition for allowance.

## Claim Objections

Claim 27 was objected to because of the informality of an omitted subscript. Applicant has amended the claim to correct this omission, and Applicant respectfully requests that the objection be withdrawn.

The Abstract was objected to under 37 C.F.R. § 1.72 as exceeding one paragraph. Applicant has amended the Abstract to correct this informality, and Applicant respectfully requests that the objection be withdrawn.

## Claim Rejections Under 35 U.S.C. § 112, first paragraph

Claims 19, 22, 23, 25, and 26 were rejected under 35 U.S.C. § 112, first paragraph, as being unpatentable for lack of enablement.

Even though Applicant disagrees with this rejection, Applicant has cancelled claims 19, 22, and 26 and has amended claims 23 and 25 to depend from claim 24, which Examiner did not cite as not enabled. Applicant respectfully requests withdrawal of the rejection.

## Claim Rejections for nonstatutory obviousness-type double patenting

Claims 17-27 currently stand rejected by the Examiner on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 7,056,866 (the '866 patent). Applicant files a terminal disclaimer contemporaneously with the present response to address the Examiner's provisional rejection. Therefore, Applicant hereby disclaims the terminal portion of any patent granted on the present application to the extent it extends beyond the expiration of the '866 patent as set forth in 35 U.S.C. §§ 154 and 173. Both the '866 patent and the instant application are currently owned by the same entity, The University of Houston.

Based on the preceding comments and the Terminal Disclaimer, Applicant submits that independent claims 17, 18, 20, 21, 24, and 27 are allowable. Dependent claims 23 and 25 depend from allowable independent claim 24, and Applicant submits that these claims are also allowable.

#### CONCLUSION

In view of the above, it is respectfully submitted that all of the claims presented herein are now in condition for allowance. If the Examiner has any questions regarding this Response and Amendment please do not hesitate to call the undersigned at the telephone number indicated below.

# Respectfully submitted,

/Lester Hewitt/

July 31, 2009

Lester L. Hewitt, Reg. No. 25,685 (date)
Akin Gump Strauss Hauer & Feld LLP
1111 Louisiana Street, 44<sup>th</sup> Floor
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713.220.5800
713.236.0822 (facsimile)
lhewitt@akingump.com

# EXHIBIT B

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	07300063	CHU, CHING WU
	Examiner	Art Unit
	Mark Kopec	1796

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

CERTIFICATE OF CORRECTION
Page <u>1</u> of <u>1</u>
PATENT NO. : 7,709,418
APPLICATION NO.: 07/300,063
ISSUE DATE : May 4, 2010
INVENTOR(S) : Ching-Wu Chu
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:
In the claims:
Claim 4 (column 14, line 20) the formula reading " $(Y_{1-x}Ba_x)_3Cu_bO_y$ " should read $(Y_{1-x}Ba_x)_aCu_bO_y$

MAILING ADDRESS OF SENDER (Please do not use customer number below):

AKIN GUMP STRAUSS HAUER & FELD 1111 Louisiana St., 44th Floor, Houston, Texas 77002

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

APR O 2 7012 WOLLD



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Applicant:

Conf. No.:

8472

CHING-WU CHU

Application No.: 07/300,063

Art Unit:

1796

7,709,418

Examiner:

Mark T. Kopec

Patent No.:

May 4, 2010

Docket No.:

053451.0001

Issue Date:

Customer No.:

1200

For: HIGH TRANSITION TEMPERATURE

SUPERCONDUCTING COMPOSITIONS

§

Commissioner for Patents Office of Data Management

**Attention: Certificates of Correction Branch** 

P.O. Box 1450

Alexandria, VA 22313-1450

# REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR PTO MISTAKE (37 C.F.R. § 1.322(a))

Attached, in duplicate, is PTO/SB/44 (also PTO 1050), the Certificate of Correction form. Upon reviewing the above-identified patent, Patentee's attorney noted a typographical error in claim 4 of the patent (col 14, line 20). Patentee respectfully requests that these errors be corrected.

It is submitted that the U.S. Patent and Trademark Office ("USPTO") is responsible for the typographical error in the issued patent. Enclosed is Patentee's Response to Office Action and Amendment dated July 31, 2009 (Exhibit A), which includes a listing of the claims with the correct formula. Original claim 21, renumbered as final claim 4, contains the correct formula:

<sup>&</sup>lt;sup>1</sup> See Exhibit B, Index of Claims (Oct. 13, 2009).

(Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>. Currently, the patent incorrectly shows subscript "a" as "3." The mistake is

of such a nature that the meaning intended may not be readily apparent from the context of the

claims and specifications; the error is thus potentially of consequence and a Certificate of

Correction is proper and should be issued pursuant to the provisions of 37 C.F.R. § 1.322 and

MPEP 1480.

Since the error for which correction is sought is an error made by the USPTO, Patentee

believes that no fee is required. The Commissioner is hereby authorized to charge any additional

fees which may be required or credit any overpayment to Deposit Account No. 16-2435. A

duplicate copy of this sheet is also enclosed.

Issuance of a Certificate of Correction is believed appropriate and is respectfully solicited.

Please send the Certificate to the undersigned.

Date: March 29, 2012

Respectfully submitted,

Rehan M. Safiullah, Reg. 63,506

AKIN GUMP STRAUSS HAUER & FELD LLP

1111 Louisiana Street, 44th Floor

Houston, Texas 77002

Telephone:

(713) 220-5800

Facsimile:

(713) 236-0822

<sup>2</sup> See Exhibit A, Resp. to Office Action and Amendment at 4 (July 31, 2009).

2

# **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, Office of Patent Publication, Certificate of Corrections Branch, P.O. Box 1450, Alexandria, VA 22313-1450 on March 29, 2012.

Rehan M. Safiullah

# EXHIBIT A

# **MAIL STOP AMENDMENT**

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Conf. No.:

8472

CHU

\$ \$ \$

Filed:

January 23, 1989

§ Art Unit:

1796

Serial No.:

For:

07/300,063

Examiner:

Mark T. Kopec

**HIGH TRANSITION** 

TEMPERATURE

Docket No.: 053451.0001

Customer No.: 1200

TEMI EKATUKE

SUPERCONDUCTING

COMPOSITIONS

Mail Stop: AMENDMENT Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sirs and Madams:

# RESPONSE TO OFFICE ACTION AND AMENDMENT

In response to the Office Action mailed February 3, 2009, Applicant respectfully requests that the Examiner reconsider the rejection of the claims in view of the following amendments and remarks set forth herein. A three-month Petition for Extension of Time is being filed herewith.

# **Adjustments to the Abstract:**

Please replace the Abstract as follows:

Described is a superconducting composition comprising an oxide complex of the formula  $[L_{1-x}M_x]_aA_bO_y$  wherein L is lanthanum, lutetium, yttrium or scandium; A is copper, bismuth, titanium, tungsten, zirconium, tantalum, niobium, or vanadium; M is barium, strontium, calcium, magnesium or mercury; and "a" is 1 to 2; "b" is 1; "x" is a number in the range of 0.01 to 0.5 and preferably 0.075 to 0.5; and "y" is about 2 to about 4. The oxide complexes of the invention are prepared by solid-state reaction procedure which produce oxide complexes having enhanced superconducting transition temperatures compared to an oxide complex of like empirical composition prepared by a coprecipitation – high temperature decomposition procedure. With a solid-state reaction prepared oxide complex of the invention a transition temperature as high as  $100^{\circ}$  K has been observed even under atmospheric pressure.

# Adjustments to the Claims:

Please cancel claims 19, 22, and 26.

Please amend claims 23-25 and 27 as follows.

The listing of claims will replace all prior versions and listings of claims in the application:

### **Listing of Claims:**

#### We claim:

- 17. (Original) A composition of matter comprising a Y-Ba-Cu-O complex of nominal formula:
  - (Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>, wherein "x" is about 0.01 to 0.5, "a" is about 1 to 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to at least 24% of the superconducting signal of a lead sample with similar dimensions.
- 18. (Original) A composition of matter comprising a Y-Ba-Cu-O complex of nominal formula:
  - (Y<sub>1-x</sub>Ba<sub>x</sub>)<sub>a</sub>Cu<sub>b</sub>O<sub>y</sub>, wherein "x" is 0.4, "a" is 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to about 24% of the superconducting signal of a lead sample with similar dimensions
- 19. (Cancelled)

- 20. (Original) A method for conducting an electrical current without electrical resistive losses, comprising the steps of:
  - utilizing as a conductor a composition of matter comprising a Y-Ba-Cu-0 complex of nominal formula  $(Y_{1-x}Ba_x)_aCu_bO_y$ , wherein "x" is about 0.01 to 0.5, "a" is about 1 to 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a  $K_2NiF_4$  crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to at least 24% of the superconducting signal of a lead sample with similar dimensions;
  - cooling said composition of matter to a temperature at or below that at which said crystalline phase becomes superconductive; and
  - initiating a flow of electrical current within said composition of matter while maintaining said composition of matter at or below the temperature at which said crystalline phase becomes superconductive.
- 21. (Original) A method for conducting an electrical current without electrical resistive losses, comprising the steps of:
  - utilizing as a conductor a composition of matter comprising a Y-Ba-Cu-O complex of nominal formula  $(Y_{1-x}Ba_x)_aCu_bO_y$ , wherein "x" is 0.4, "a" is 2, "b" is 1, and "y" is about 2 to about 4, containing a superconductive crystalline phase consisting essentially of Y, Ba, Cu and O which has zero electrical resistance at 77°K or above, said superconductive crystalline phase having a crystal structure uncharacteristic of that of a  $K_2NiF_4$  crystal structure, and said superconductive crystalline phase being present in said composition of matter in a quantity sufficient to provide the composition with a diamagnetic signal at 4.2°K corresponding to about 24% of the superconducting signal of a lead sample with similar dimensions;

- cooling said composition of matter to a temperature at or below that at which said crystalline phase becomes superconductive; and
- initiating a flow of electrical current within said composition of matter while maintaining said composition of matter at or below the temperature at which said crystalline phase becomes superconductive.
- 22. (Cancelled)
- 23. (Currently Amended) The superconducting composition of claim <u>24 22</u>-wherein the composition exhibits zero electrical resistance at a temperature of 77°K or above.
- 24. (Currently Amended) A The superconducting composition exhibiting zero electrical resistance at a temperature of 40°K or above of claim 23 having the nominal formula

$$[Y_{1-x}Ba_x]_aCu_bO_y$$

wherein x is 0.4, a is 2, b is 1, and y is 2 to 4.

- 25. (Currently Amended) The superconducting composition of claim <u>24 22</u>-wherein said composition has a crystal structure uncharacteristic of that of a K<sub>2</sub>NiF<sub>4</sub> crystal structure.
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- 27. (Currently Amended) A superconducting composition exhibiting zero electrical resistance at a temperature of 77°K or above having the nominal formula:

wherein "a" is about 1.2, "b" is about 0.8, "c" is about 1.0, and "x" is about 2 to 4.

#### REMARKS

Responsive to the Office Action mailed February 3, 2009, Applicant thanks Examiner for his thorough examination of the application. Claims 17-27 are currently pending. After entry of this Amendment, claims 17, 18, 21, 23-25, and 27 will remain pending. In view of the following remarks, Applicant respectfully submits that the application is in condition for allowance.

# Claim Objections

Claim 27 was objected to because of the informality of an omitted subscript. Applicant has amended the claim to correct this omission, and Applicant respectfully requests that the objection be withdrawn.

The Abstract was objected to under 37 C.F.R. § 1.72 as exceeding one paragraph. Applicant has amended the Abstract to correct this informality, and Applicant respectfully requests that the objection be withdrawn.

# Claim Rejections Under 35 U.S.C. § 112, first paragraph

Claims 19, 22, 23, 25, and 26 were rejected under 35 U.S.C. § 112, first paragraph, as being unpatentable for lack of enablement.

Even though Applicant disagrees with this rejection, Applicant has cancelled claims 19, 22, and 26 and has amended claims 23 and 25 to depend from claim 24, which Examiner did not cite as not enabled. Applicant respectfully requests withdrawal of the rejection.

# Claim Rejections for nonstatutory obviousness-type double patenting

Claims 17-27 currently stand rejected by the Examiner on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 7,056,866 (the '866 patent). Applicant files a terminal disclaimer contemporaneously with the present response to address the Examiner's provisional rejection. Therefore, Applicant hereby disclaims the terminal portion of any patent granted on the present application to the extent it extends beyond the expiration of the '866 patent as set forth in 35 U.S.C. §§ 154 and 173. Both the '866 patent and the instant application are currently owned by the same entity, The University of Houston.

Based on the preceding comments and the Terminal Disclaimer, Applicant submits that independent claims 17, 18, 20, 21, 24, and 27 are allowable. Dependent claims 23 and 25 depend from allowable independent claim 24, and Applicant submits that these claims are also allowable.

#### CONCLUSION

In view of the above, it is respectfully submitted that all of the claims presented herein are now in condition for allowance. If the Examiner has any questions regarding this Response and Amendment please do not hesitate to call the undersigned at the telephone number indicated below.

# Respectfully submitted,

/Lester Hewitt/

July 31, 2009

Lester L. Hewitt, Reg. No. 25,685
Akin Gump Strauss Hauer & Feld LLP
1111 Louisiana Street, 44<sup>th</sup> Floor
Houston, Texas 77002-5200
713.220.5800 (date) 713.236.0822 (facsimile) lhewitt@akingump.com

# EXHIBIT B

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	07300063	CHU, CHING WU
	Examiner	Art Unit
	Mark Kopec	1796

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

CERTIFICATE OF CORRECTION	
PATENT NO. : 7,709,418  APPLICATION NO.: 07/300,063	Page <u>1</u> of <u>1</u>
ISSUE DATE : May 4, 2010	
INVENTOR(S) Ching-Wu Chu	
It is certified that an error appears or errors appear in the above-identified patent and is hereby corrected as shown below:	that said Letters Patent
In the claims:	
Claim 4 (column 14, line 20) the formula reading " $(Y_{1-x}Ba_x)_3Cu_bO_y$ " should read $(Y_{1-x}Aa_x)_3Cu_bO_y$ " should read $(Y_{1-x}Aa_x)_3Cu_$	<sub>-x</sub> Ba <sub>x</sub> ) <sub>a</sub> Cu <sub>b</sub> O <sub>y</sub>

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.